12/24/96

MEMORANDUM

SUBJECT: Approval of 9 Revised Natural Gas Pipeline PCB Compliance Monitoring Program (CMP) Plans

FROM: Michael Calhoun, Environmental Scientist
Multimedia Enforcement Branch

THRU: David Hindin, Chief
Multimedia Enforcement Branch

TO: Melissa Marshall, Director
Multimedia Enforcement Division

The purpose of this memorandum is to seek your approval of nine revised PCB Compliance Monitoring Plans based on the Interstate Natural Gas Association of America (INGAA) proposal approved by MED on July 3, 1996. If you agree, please sign the approval letters attached to this memorandum.

On July 3, 1996, ORE/MED approved a proposal by the Interstate Natural Gas Association of America (INGAA) to revise the 1981 PCB Compliance Monitoring Program for the 10 major natural gas transmission pipelines still participating in the national program. Under the revised program, each of the ten pipeline companies were required to submit a revised PCB monitoring plan to include new system maps, a summary and analysis of historical PCB data and a new PCB sampling scheme. Attached is a copy of MED's July 3, 1996 letter approving INGAA's April 8, 1996 proposal. Note that each company has agreed to participate in the revised CMP.

Background

In January 1981, PCBs were discovered in natural gas pipeline liquids in Long Island, NY. Pipeline liquids include pipeline condensate and other liquids that were intentionally or accidentally added to the pipeline. Pipeline condensates, primarily composed of hydrocarbon distillates, occur as a result of the movement of pressurized natural gas through a pipeline under varying temperature conditions. Examples of liquids added to natural gas pipelines include: methanol as a cleaning solvent; metals formulations for corrosion protection; PCBs compressor liquids that leak from turbine compressors into the pipeline; and PCBs in waste oil sprayed into the pipeline (known as fogging the lines) for gasket protection.

Background (continued)

EPA, state and industry formed a taskforce in January 1981 to address the PCB problem and to coordinate national activities. Under this taskforce, headquarters EPA took responsibility for major interstate transmission companies, while the EPA Regions were asked to work with public service commissions and local distribution companies. Extensive EPA and industry sampling of pipeline transmission liquids revealed that 13 major natural gas transmission companies had PCB contamination greater than 50 ppm in violation of the PCB Rule Prohibitions Section found at 40 CFR Section 761.20. PCB pipeline liquids contamination also was found at a number of local distribution companies.

In late 1981, EPA instituted a Compliance Monitoring Program (CMP) for the 13 companies found to have **PCBs greater than 50 ppm**. At that time, the use of PCBs in natural gas pipelines at greater than 50 ppm constituted a use of PCBs in a non-totally enclosed manner, prohibited by 40 CFR Section 761.20(a). The 1981 CMP required each company to develop remedial plans with four basic objectives: (1) to ensure the proper storage and disposal of PCBs; (2) to contain PCB contamination to limited areas of the transmission system; (3) to eliminate any further entry of PCBs into the pipeline system; and (4) to remove remaining PCB contamination from the pipeline system. To achieve these objectives, most of the participants installed filter separators to collect condensate at several locations along their respective pipeline systems.

In addition, each company was asked to develop and submit PCB monitoring plans that included sampling key points within the contaminated area. Suggested sampling locations included major natural gas purchasers and large volume condensate collections points. Individual monitoring plans were finalized with each company in late 1981 and early 1982.

EPA decided that it would not take enforcement action against such companies for the **improper use of PCBs** as long as they participated in an EPA (HQ or regional) compliance monitoring program. **All companies were required to comply with all other aspects of the PCB rule, which included marking, recordkeeping and disposal**.

In 1983, three companies were dropped from the CMP because their PCB levels were found to be less than 50 ppm PCBs. The three companies dropped in 1983 were Great Lakes, Michigan-Wisconsin and Northern Natural. In July 1984, EPA amended the PCB regulations and authorized the use of PCBs in natural gas pipelines at less than 50 ppm pursuant to 40 CFR Section 761.30(i).

Background (continued)

To date, **10 companies are still participating in the CMP and have submitted semi-annual reports to Headquarters since 1983.** The ten companies are Algonquin Gas; Columbia Gas; Columbia Gulf; CNG/Consolidated Gas; Midcon; Tennessee Gas; Texas Gas, Transco; Panhandle (Texas)Eastern; Enron (Transwestern). (See TAB 4 for example CMP monitoring report.) Since 1983, each company has conducted biannual sampling and reported the results to EPA in April and November of each calendar year. EPA Headquarters has periodically sent copies of CMP reports to the regional offices for their use in targeting PCB inspections. Under the 1981 CMP, an estimated that 4 million gallons of PCB liquids have been disposed of in accordance with TSCA and the PCB regulations.

1995-EPA and Natural Gas Pipeline Companies Meeting

On November 1, 1995, Mike Calhoun of ORE/MED and Tony Baney and John Smith of OPPTS/OPPT met with officials from 10 major natural gas pipeline transmission companies, American Gas Association (AGA) and the Interstate Natural Gas Association of America (INGAA). The meeting had two main purposes. First, EPA/MED requested the 10 pipeline companies still participating in the CMP to revise their existing plans. Second, EPA/OPPT explained in general terms how the proposed PCB "Mega" Rule and the expanded PCB use authorization for natural gas pipelines contained in the "Mega" Rule will replace the historical 1981 CMP, as well as, streamline permitting, decontamination and disposal issues relating to natural gas pipelines. During the meeting, EPA representatives answered industry questions on both the 1981 CMP and the proposed PCB rule.

MED Lead on the 1981 CMP

In a memorandum dated April 3, 1996, ORE/TPED and ORE/MED agreed that MED would take the lead in monitoring the 1981 CMP and multimedia pipeline enforcement cases.

INGAA's 1996 Proposal

INGAA's April 8, 1996 proposal requires **each natural gas pipeline company to annually generate and submit**:

(1) a system map, to include both main and lateral lines, delineating the areas with PCB contamination greater than or equal to 50 ppm PCBs over at least the last 3 years;

(2) a summary and analysis of the historical PCB monitoring data;

INGAA's 1996 Proposal (continued)

(3) a representative PCB sampling protocol; Under the INGAA proposal, each CMP companies will submit a revised annual liquids sampling protocol that has been specifically developed to monitor a **known area or segment of PCB contamination** on the system.

(4) a summary of pipeline liquids removed from the system.

The advantages of the INGAA proposal are listed below.

o The 1996 INGAA proposal allows EPA and industry to make the transition from the CMP to similar requirements in the upcoming PCB disposal regulation amendments. Upon promulgation (probably in 1997), the expanded use authorization for PCBs in natural gas pipelines will supersede the CMP. EPA's longest running enforcement discretion program will end. Under the new rules, the use of PCBs at greater than 50 ppm will be authorized subject to certain conditions, including a notification requirement to the Regions and/or OPPT.

o EPA obtains updated pipeline system maps and summaries showing where PCB contamination exists. MED will provide this information to Regions and States for their use in monitoring interstate and local distribution pipeline companies.

O INGAA proposal conserves EPA's limited resources.

O CMP companies also conserve their resources in simplifying PCB sampling and reporting requirements.

Status of Revised PCB-CMP Plans

To date, we have received revised CMP plans from all ten pipeline companies. The last plan was submitted by Enron/Transwestern on December 13, 1996. Upon the receipt and review of additional information, a separate request for approval will be submitted for the Enron plan. A summary and analysis of each of the nine plans ready for approval is presented below.

Midcon (Natural Gas Pipeline Co. Of America)

Midcon submitted their revised plan in two parts: on 9/18/96 and 10/7/96. The first submittal contained the sampling protocol and QA/QC information. The second submittal, in response to my request for more information, contained Midcon's summary of PCB data from 1993 to 1995, maps and their new sampling proposal.

Midcon's revised plan complies with the approved INGAA proposal. The PCB contamination at greater than or equal to 50 ppm is limited to 200 mile section in IL. This was also the case under the 1981 CMP. Midcon has proposed to expand the sampling at the same 3 compressor stations located in IL as required by the 1981 CMP. Midcon proposes to sample each of the 3 transmission lines at each station, as well as, each stations condensate storage tank. Under the old program, they were required to only sample the storage tank at each station. Midcon has proposed to sample annually in September/October. **Recommend approval.**

Tenneco

Tenneco submitted their revised plan on 9/27/96. The revised plan complies with the approved INGAA proposal. A review of the historical file, revised maps and PCB data shows that the PCB concentrations and areas of PCB contamination have been significantly reduced. Prior to this submittal, the PCB contamination was assumed to encompass the entire northeastern part of the system: all of PA; NY; NJ; MA, CN and part of NH. Tenneco collected 28 PCB samples from across the northeastern part of the system under the 1981 CMP.

The revised CMP shows two limited zones of PCB contamination. Zone 1 is a 150-mile section in western NY and Zone 2 a is 300-mile section from eastern NY-western MA/CT. Tenneco has proposed to sample 8 locations in these two areas during the 4th quarter of each calendar year. **Recommend approval**.

Algonquin

Algonquin submitted their plan on 9/27/96. The revised plan complies with the approved INGAA proposal. Both old and the new plan assumed that the entire Algonquin system, from NJ to RI, was contaminated with PCBs at greater than 50 ppm. The RI and MA sections still show PCB levels at greater than 500 ppm.

Under the 1981 CMP, Algonquin collected samples from 6 locations. Algonquin has proposed to sample at 8 locations, five within the MA/RI section on a quarterly basis (only annual is required). **Recommend approval.**

CNG Transmission Corporation

CNG submitted their initial plan on 9/27/96 and a second submittal on 11/4/96 in response to my request for additional information. The revised plan complies with the approved INGAA proposal. Under the 1981 CMP, CNG collected PCB samples from 9 locations on the northern part (PA/NY) of the system.

Under the revised plan, CNG proposes to sample 19 locations on a 700-mile section of the system located in northern/PA-western NY to central NY and 3 locations on a 100-mile section located in PA, MD and VA. All samples will be collected in the 4th quarter of each year. The PCB contamination in both areas is generally in the 50-499 ppm range; with only the Utica to Albany, NY 150-mile segment in the 500 ppm or greater range. **Recommend approval**.

Columbia Gas

Columbia Gas submitted their plan 10/15/96. A revised plan was submitted 11/8/96 based on my request for additional information. The revised plan complies with the approved INGAA proposal. Under the 1981 CMP, Columbia collected 13 samples from the northern part of the system in WV, PA OH and NY.

Under the revised plan, the PCB contamination between 50-499 ppm is confined to 3 mainline sections (shaped like a fork): a 300-mile section located in northern KY to northern OH; a 200-mile central section located in WVA to southwestern PA; and a 100-mile eastern section in WVA. Under the revised plan, Columbia assumes that the 3 sections are PCB contaminated (50-499 ppm range)and proposes to sample 5 representative locations on the system in the 4th quarter of each year. **Recommend approval**.

Columbia Gulf

Columbia Gulf submitted their initial plan on 10/8/96. A revised plan was submitted on 11/8/96 based on my request for additional information. The revised plan complies with the approved INGAA proposal. Columbia Gulf pipeline is located in LA, MS, TN, and KY. Under the 1981 CMP, PCB contamination in 50-499 ppm range extended from MS to KY. Columbia Gulf collected 14 samples under the old program.

Under the revised plan, the PCB contamination (50-499 ppm range) is limited to a single 250-mile mainline section in KY. Columbia assumes this entire segment to be PCB contaminated and proposes to sample each of the three 36" diameter pipelines at the Clementsville, KY station, located in the approximate center of the contaminated segment, in the 4th quarter of each year. **Recommend approval**.

Texas Eastern

Texas Eastern submitted their initial plan on 9/27/96. EPA asked for clarification on some data and maps on 10/22/96. EPA received the additional information on 11/29/96. The revised plan complies with the approved INGAA proposal. Under the 1981 CMP, the entire Texas Eastern from LA to NJ was assumed to be PCB contaminated at greater than 500 ppm PCBs. Texas Eastern collected 60 PCB samples under the old program.

Under the revised plan, Texas Eastern has proposed to sample 46 locations on their system. Most of the sampling will be done from KY to NJ. PCB levels in the Texas Eastern system have decreased significantly. With the exception of 4 hot spots, the vast majority of the northern part of the Texas Eastern system is in the 50 to 499 ppm range. With the exception of 4 small segments, the central (OH to TX) and the southern pipelines (TN to LA) contain PCBs at less 50 ppm. Texas has agreed to sample in the 4th quarter of each calendar year. **Recommend approval**.

Texas Gas

Texas Gas submitted their initial plan on 11/26/96. The Texas Gas plan complies with the approved INGAA proposal. Texas Gas pipeline passes through LA, MS, TN, KY, IL, IN and OH. Under the 1981 CMP, Texas Gas collected 11 PCB samples from across the system. In 1983, Texas Gas began collecting an additional 13 samples.

Since 1989, Texas Gas PCB data shows that 99 percent of the system to contain PCBs at less than 50 ppm. The PCB contamination above 50 ppm is limited to a single 250-mile section of 18-inch line in northern MS. Texas Gas assumes that this 250-mile segment is PCB contaminated and proposes to sample one location, the Weaver Road Meter Station, in the 4th quarter of each year. **Recommend approval**.

Transco

Transco submitted their initial plan on 11/8/96. A revised plan was submitted on 12/6/96 based on my request for additional information. The revised plan complies with the approved INGAA proposal. Under the 1981 CMP, the northern section of the system from PA to NJ was considered to be PCB contaminated. Transco collected 8 PCB samples under the old program.

PCB data submitted in the revised plan shows the extent of PCB contamination has significantly decreased. A single 50 mile mainline section in NJ and NY is contaminated with PCBs in the 50 to 499 ppm range. Transco proposes to sample 6 locations from this segment in the 4th quarter of each year. **Recommend approval**.

Lastly, note that most of the above listed companies collect condensate from any number of points on their systems and test for PCBs prior to disposal. All companies have agreed to report all PCB sampling results equal to or greater than 50 ppm PCBs in the annual CMP-PCB report. The reporting of the PCB results of this disposal testing will further support the revised CMP and ensure that any new PCB hot spots are addressed by EPA and pipelines companies.

If you approve of this activity, please sign the attached approval letters and return them to me.

Attachments

cc: J. Baskerville
TSCA Regional Division Directors